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This thesis, A SURVEY OF PRECEPTOR TRAINING IN CLINICAL EDUCATION OF RESPIRATORY CARE DEPARTMENTS IN SELECTED HOSPITALS IN METROPOLITAN ATLANTA, by Tariq Aljasser, RRT-NPS, was prepared under the direction of the Masters' Thesis Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree of Master of Science in the Byrdine F. Lewis School of Nursing and Health Professions, Georgia State University.

The Master's Thesis Advisory Committee, as representatives of the faculty, certifies that this thesis has met all standards of excellence and scholarship as determined by the faculty.

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I would like to thank my parents who praised my education since I was little, listening religiously to my school-radio broadcasting and keeping me inspired and motivated. I can never forget their smile, pride and happiness as I decided to pursue my Master's degree. Unfortunately, my father did not live to witness my graduation, may Allah grant mercy upon his soul.

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A SURVEY OF PRECEPTOR TRAINING IN CLINICAL EDUCATION OF RESPIRATORY
CARE DEPARTMENTS IN SELECTED HOSPITALS IN METROPOLITAN ATLANTA

By

Tariq Aljasser, BSRT, RRT-NPS

A Thesis
Presented in Partial Fulfillment of Requirements for the
Degree of
Master of Science
in
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the Department of Respiratory Therapy
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the Byrdine F. Lewis School of Nursing and Health Professions

Atlanta, Georgia

A SURVEY OF PRECEPTOR TRAINING IN CLINICAL EDUCATION OF RESPIRATORY CARE DEPARTMENTS IN SELECTED HOSPITALS IN METROPOLITAN ATLANTA

By

Tariq Aljasser

(Under the Direction of Douglas S. Gardenhire)

ABSTRACT

Preceptorship is the ideal method for teaching students in the healthcare environment. Due to a shortage of staffing, respiratory care students are not often assigned with preceptors, rather they are assigned with respiratory care staff that has minimal to no formal training in education. Therefore, students may not receive appropriate role involvement, decision-making and patient skills experience. **PURPOSE:** The purpose of this study was to examine the current methods of preceptor training and evaluate the need for a preceptor-training program according to the education coordinators and respiratory care directors/managers. **METHODS** Data were acquired through a descriptive survey. The survey was formulated and sent using the online survey generator Zoomerang. The survey was submitted to a convenience sample of department directors, department education coordinators, and staff at clinical affiliates associated with Georgia State University. **RESULTS:** Thirty-six participants were surveyed with a response rate of 67%. Forty-eight percent were a respiratory director/manager, 35% education coordinator and 9% supervisor. Eighty-six percent of participants work in not-for-profit hospitals. Seventy-nine percent of participants believe there is a need for a standardized preceptor-training program, however, only 64% reported that preceptors receive training prior to receiving students. **CONCLUSION:** There is a need for a standardized preceptor-training program for respiratory therapists to improve the quality of clinical education provided to respiratory therapy students.

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Chapter I

INTRODUCTION

Respiratory care is one of the most evolving healthcare professions in the last five decades. According to the United States Department of Labor, respiratory care held approximately 112,000 jobs in 2010, with projected growth up to 143,000 by 2020, a 28% increase (Bureau of Labor Statistics, 2012). As of 2011, there are 451 academic programs that offer respiratory care education in the United States (CoARC, 2012). These programs include both baccalaureate and associate degrees (Barnes, Kacemarek, Durbin, 2011). The evolution of respiratory care as a profession has developed from minimal duties at bedside (breathing treatments and oxygen therapy) to an array of services that cover therapeutics and diagnostics in cardiopulmonary diseases, such as mechanical ventilation, pulmonary function testing and chest physical therapy and often assist in major assignments like bronchoscopies (Galvin, 1997). Other duties that go beyond lung functions include diagnosing sleep disorders and cardiac problems. With many programs offering both bachelor and associate degrees nationwide the need for standard clinical education is significant.

For respiratory care programs, clinical education is the main component of teaching and learning, since it has a great impact on the student critical thinking and problem solving skills. About 937 hours in baccalaureate programs are spent in clinical rotation according to the “White Paper’ published by the Coalition for Baccalaureate and Graduate Respiratory Therapy Education (CoBGRTE) in 2010. Most four-year academic programs start their clinical rotation from the first semester in the junior year, to allow the student to adapt to the professional environment. The kind and duration of educational experience varies based on the program. The Commission on Accreditation for Respiratory Care (CoARC) accredits all respiratory care

academic programs. While CoARC require programs to have documented compliance, evaluation and scoring of student's competencies during their hospital rotation and internship, they need to specifically discuss standards and duration of clinical rotation (CoARC Standards, 2010). Therefore, different programs across the nation have different clinical education requirements (Barnes, Kacemareck, Durbin, 2010). Along this line of inconsistencies, the need for a standard respiratory care preceptor comes very essential.

The start of clinical rotation in the hospital can be the most difficult phase for students (Kapucu & Bulut, 2011; Brown, Herd, Humphries, Paton, 2005). Students feel intimidated when they begin their first clinical rotation, as they treat patients of different attitudes and backgrounds. In addition, clinical staff who are precepting these students might have a very rigid expectation, not knowing exactly what kind of information these students have without being appropriately directed. Students usually are assigned either to a current registered practitioner or to a designated clinical instructor. This relationship between the student and the staff is known as preceptorship (Udlis, 2008). Preceptorship was the sole method of transmitting and delivering the respiratory care education when the profession started 50 years ago, with respiratory therapists being trained on-the-job by experienced therapists (Collins, 1969).

Preceptorship is the preferred method for teaching students in the healthcare environment, particularly respiratory care students who must exert certain skills beyond the classroom or the laboratory setting (Rye&Boone, 2009). For example, decision-making in management and troubleshooting of mechanical ventilation is an important skill that is taught mainly at the bedside. Clinical educators play an important role in providing the support in this matter; however, clinical educators are not available at all times in all hospitals where respiratory care students complete their clinical rotation. In this case, some students can be assigned to

untrained staff members who have minimal experience in the education process (Cullen, 2005). Many respiratory therapists who are asked to precept students may feel unprepared for teaching and may feel concerned that they do not have the skills to be a good preceptor (Rye&Boone, 2009; Cullen, 2005). Respiratory therapists who work with respiratory students are professional employees who usually volunteer to take the extra responsibility of student teaching while keeping their assigned workload. If there is no appropriate support and orientation for these employees, the extra work can lead to tiredness and burnout. Cullen (2005) describes the elements that are usually lacking among respiratory therapists who receive students during their clinical rotation as the ability to manage time between patient care and education to the students (Cullen, 2005).

Purpose of Study

Due to a shortage of staffing, respiratory care students are not often assigned with clinical instructors; rather, they are assigned with respiratory care staff that has minimal-to-no formal training in education. Therefore, students may not receive appropriate role involvement, decision-making and patient skills experience. We hypothesized that respiratory care departments will recognize the importance and need for a standard preceptor-training program. Our purpose in this study was to examine the current methods of preceptor training and evaluate the need of preceptor training program according to the clinical instructors or respiratory care managers of clinical affiliates associated with the department of respiratory care at Georgia State University. The following research questions are addressed to help steer the designing and collection of this research study:

1. Who supervises the respiratory therapy student in respiratory care departments?

2. Do respiratory care departments employ a preceptor-training program?
3. How are respiratory therapy students placed with respiratory therapy staff?
4. Who delivers preceptor-training programs to respiratory care staff?
5. Are respiratory therapy staff given any incentives in precepting students?
6. Is there a need for a standardized preceptor training program in respiratory care?

Significance of study

This study is very important in reviewing the need for an appropriate preceptor-training program for respiratory care practitioners who are responsible for educating new respiratory care students. The study is also significant in identifying current difficulties in clinical education for respiratory care programs.

Definitions of Words and Terms

CoARC: The Commission on Accreditation for Respiratory Care accredits first professional respiratory care degree programs at the Associate, Baccalaureate, and Masters Degree level in the United States and internationally.

CoBGRTE: The Coalition for Baccalaureate and Graduate Respiratory Therapy Education is an organization to help students, faculty, and the general public learn about baccalaureate and graduate respiratory therapy education in the United States of America.

Assumptions

The intention of this survey research is to demonstrate the need for a standard preceptor-training program for respiratory care clinical education in hospitals affiliated with Georgia State

University. Clinical and preceptor training will vary from hospital to hospital. The current research study will not be able to infer results to all hospitals across the country.

Chapter II

REVIEW OF THE LITERATURE

The following literature review covered many health professions for the past three decades, as preceptorship became a very important element in clinical education of these health professions. Databases accessed for this review include: PubMed, CINAHL, Ovid and EBSCOhost. Search keywords used were: preceptorship, preceptor, clinical education, respiratory care, respiratory therapy, nursing, physical therapy, pharmacy, medicine, student, and mentorship. Results included a wide spectrum of articles that discussed history of clinical education in various health professions, content of preceptor-training programs and efficacy and significance of these programs in improving student's clinical education.

Looking at the literature of preceptorship in the clinical education of different health care specialties, we see different publications about the importance of preceptorship, content of preceptor-training programs, and the desired characteristics of an ideal preceptor. Some healthcare specialties have had more publications and in-depth discussions of what specific goals they set for their preceptor's education, and job description than others. One of the areas with the most abundant publications is the nursing profession.

The terms "preceptorship" and "mentorship" have been used frequently by many publications in respiratory care, nursing, pharmacy, and physical therapy. In some publications, these terms were used interchangeably (Rye & Boone, 2009; Mantzorou, 2004). The clear distinction between the roles of each has been an area of controversy (Cullen, 2005). Preceptorship is associated with the relationship between a newly graduated practitioner and an experienced registered staff member to help the transition into the work place (Cullen, 2005). Problematically, this term is used in a different relationship as in the relationship between a

student and an experienced staff member to support applying theories and knowledge into the clinical site. Preceptorship has a targeted timeline with specific objectives and goals to be achieved (like procedure check-off for students). On the other hand, mentorship usually is associated with a longer, not-specified period of relationship that does not have a specific timeline or specific objectives to follow (Cullen, 2005).

Content of Preceptorship Program

Content of preceptor-training programs include development of teaching skills, time management, legal issues, effective communication and feedback to students (Altmann, 2006; Cullen, 2005; Wetherbee et al., 2010). Teaching skills include knowledge of different styles of adult learning, such as face-to-face, and developing individualized learning experiences (Sonoma State University, 2005). Teaching skills also include clinical teaching strategies that promote students' critical thinking (Burns & Northcutt, 2009). Coordination between student teaching and patient care has been an essential part of time management skills that are covered in the preceptor program (Cullen, 2005). Physical therapy clinical education is one of the leading professions that emphasizes legal considerations and requirements of student caring for handicapped patients (APTA, 2010). Communication and feedback is an essential part of preceptor training.

Preceptorship in Nursing Education

Nursing clinical education commenced in the sixteenth century. Udliis (2006) described the influence of Florence Nightingdale in promoting education of nursing students in the hospital with experienced staff nurses in the 1900's (Udliis, 2006). Formal education has been deemed necessary, particularly in the United States (Udliis, 2006).

As the profession developed, academic programs were in charge of clinical as well as didactic education (Myrick, 1988).

While faculty members had the important skills in teaching curriculum courses and research, they lacked essential, up-to-date clinical skills at the bedside. This led to the development of clinical preceptorship programs in the 1970's for nursing education (Udlis, 2006). Since 2003, the preceptorship program was embraced by the American Association of Colleges of Nursing as an advanced clinical education practice.

In 2009, The College of Nurses of Ontario recognized the role of nurses as educators and supporters of the nursing education process (Duteau, 2012). Currently, the association also provides guidelines for nurses that outline the responsibilities of nursing staff in supporting students. The Australian Nursing and Midwifery Council (ANMC) mandates Registered Nurses (RN) to be able to supervise and be able to evaluate other's performance in the workplace (Smedley, Morey, and Race, 2010). The council also provides courses directed towards enhancement of nurse's education and communication skills. As a result, nurses are expected to be fully prepared for the role of preceptors for new nursing students (Smedley et al, 2010).

Several publications indicate that nursing students have improved their role performance and skills in socialization when they were assigned with well-prepared preceptors. Udlis (2006) has published a retrospective literature review of about sixteen articles discussing the importance of preparing preceptors. While 56% of published articles approved of benefits of preceptor training in student performance, researchers found less significance of these programs in influencing the nursing students' performance on the registry exams. Other areas examined in Udlis's literature review include critical thinking and clinical competence.

Some of the literature found in nursing education looks at specific goals that can be achieved with a preceptorship program. Using quantitative research methods, Smedley et al. surveyed 117 nurses who completed preceptorship program. The program content involved nurses acquiring skills in various styles of adult learning, assessment of student needs, developing effective communication, student assessment and student evaluation. They found that majority of participating nurses thought that the program achieved its purpose. Further detailed outcomes as follows (Smedley et al.):

- Increased knowledge of the teaching/learning process
- Increased knowledge of preceptor skills
- Increased self-efficacy
- Positively changed their attitudes towards nursing students.

Preceptorship in Pharmacy

In pharmacy clinical education, the Accreditation Council for Pharmacy Education (ACPE) requires preceptors to complete a course or a program that helps in preparation for preceptorship of new pharmacy students (ACPE, 2011). This program allows the pharmacists to integrate their daily clinical practice with the best education and clinical experience of pharmacy students. Similarly, pharmacy residents are new graduates who must undergo a 2-year residency program in order to be licensed as pharmacists (Marrs & Rackham, 2010). During this period, pharmacy residents are required by state boards to be able to precept students (Marrs & Rackham, 2010). The American Society of Health Systems Pharmacist (ASHP) oversees and monitors the residency programs in the United States. After graduation, residents are mandated by some states, through the ASHP, to precept and to be part of pharmacy education for students.

ASHP provides guidelines and regulations for preceptors involved in the training of pharmacy residents. For example, only licensed pharmacists with a minimum of one-year experience are allowed to precept pharmacy residents (Marrs & Rackham, 2010). ASHP also identifies student objectives and goals for postgraduate pharmacy residents during their residency period. This is considered a very organized and standardized form of preceptor training. This type of regulations does not apply for all healthcare professions, such as respiratory care, where degree requirement does not have residency period after graduation. It is very clear that the preceptor education in pharmacy is very significant. Research studies have shown that preceptors were missing important education skills and information about student classroom background. When preceptor training was offered, many preceptors were able to uncover information about student academic background as well as being able to teach students with improved communication skills.

Assemi, Corellib and Ambrose (2011) describe a preceptor preparation program that has been developed by the School of Pharmacy at the University of California, San Francisco (Assemi, Corellib & Ambrose, 2011). The program is called “The Effective Clinical Preceptor”. This program was developed in 2004, and it contains the following objectives:

- Effective clinical teaching methods, addressing various adult-learning styles and providing effective feedback to the students
- Ability to assess weak student performance
- Knowledge of the school philosophies, curriculum and policies.

This course was not established based on preceptor needs assessment, rather based on previous literature of adult teaching methods (Assemi et al., 2011). The author surveyed preceptors who completed this course to assess the training needs of a pharmacy preceptor. The majority of pharmacy preceptors responded positively to the course as they have been lacking

essential training for being preceptors. All agreed on the benefits of such a training program in improving their teaching skills, communication with students, and improve their knowledge of school policies (Assemi et al., 2011).

Preceptorship in Physical Therapy

Physical therapy education requires thirty weeks of clinical education for students (CAPTE, 2009). In 1997, the American Physical Therapy Association (APTA) created a national training program for physical therapy clinical instructors (APTA, 1997). Since it was created, the Clinical Instructor Education and Credentialing Program (CIECP) has been completed by more than 31 thousands physical therapists nationwide (APTA, 2010). The program focuses the following objectives:

- Partnership/relationship between the academic program and the clinical affiliate
- Roles of the clinical instructors and students during the clinical education
- Discussion of legal regulations of clinical education including HIPPA regulation
- Detection of special-case students and how to manage such cases
- Development of learning experience that would differ from student to another based on student needs
- Nurturing skills in supporting ongoing learning through formative and summative evaluations

The program requires physical therapist to have at least one-year experience to be eligible to enroll (APTA, 2010).

Other publications in physical therapy evaluates the significance of this program and finds student's perception of their credentialed preceptors is not different from those who have

not completed the program (Morren, Gordon, & Sawyer, 2008; Wetherbee, Nordrum, & Giles, 2008). These publications consist of questionnaire or surveys administered to students asking them to evaluate effectiveness, learning experience and characteristics of clinical instructors. However, many of these studies have flaws in the design. Some of these studies use survey instruments that either lack appropriate validity or were conducted in one location. Also, some of these studies did not incorporate students in all stages in clinical education.

Housel, Gandy, and Edmondson (2010) designed a study comparing the student's evaluation of 76 clinical preceptors using an adapted survey instrument from the New England Consortium of Academic Coordinators of Clinical Education (NEC-ACCE) (Housel, Gandy, & Edmondson, 2010). The sample contained 38 credentialed clinical instructors and 38 non-credentialed instructors. The survey was 27-specific criteria for students to evaluate their clinical experience and their preceptors. 22 of the criteria scored higher in favor of the credentialed preceptors. The authors conclude that CIECP improved the effectiveness of preceptorship during student clinical education.

Preceptorship in Respiratory Care

In respiratory care education, Dr. Alvan Barach set the requirements for education of the "Inhalation Therapists" in the late 1940's (Barnes & Ward, 2010). The minimum standard requirements consisted of one year of academic classes and theoretical education, and an additional year where students were required to spend time with physicians and fellow "Inhalation Therapists" at the clinical site. As the profession developed over the next decades, the development of CoARC in 1996 was a great breakthrough in accreditation for all respiratory care academic programs. While CoARC require programs to have documented compliance,

evaluation and scoring of student's competencies during their hospital rotation and internship, they need to specifically discuss standards and duration of clinical rotation (CoARC Standards, 2010).

One of the early-published pieces of literature regarding respiratory care preceptors was a study published in *Respiratory Care Education Annual Journal*. The authors developed a preceptor-training program that was administered to 45 respiratory practitioners at a children's hospital in Arkansas (Rye, Boone, & Neal-Rice, 2007). The program contained objectives such as: the role of the preceptor, student needs in the clinical environment, and providing feedback to the students.

Participants were surveyed afterwards regarding their experience during their role as preceptors in the student's clinical rotation. The survey was not directly related to the training program provided (for instance, questions in the survey did not assess information about that particular training program) (Rye et al., 2007).

In this survey, the authors noted that the majority of responses report that preceptor's knowledgebase is lacking regarding the concepts of teaching and student needs (Rye et al., 2007). Preceptors also marked an important discussion point regarding time management between student teaching and patient care. One limitation of this study is that the sample is very small (45 participants). Also, the study cannot be generalized since it was conducted in one hospital; we can infer from this article, however, that appropriate communication between the education institute and preceptors are very essential, and sometimes lacking (Rye et al., 2007).

Later, Rye and Boone (2009) extended their research in preceptorship in respiratory care. In 2009, they developed a survey instrument directed to all accredited programs in the United States (n= 248), with the content to find out the importance of preceptor training programs for

respiratory care (Rye & Boone, 2009). Seventy-four respiratory education programs responded to the survey, with response rate of 30% (Rye & Boone, 2009). Although the author did not mention any limitations, it is very possible that large content of the survey (32 survey questions) was probably part of the poor response rate (Rye & Boone, 2009). Eighty-one percent of respondents agreed on the need for a formal standardized preceptor-training program (Rye & Boone, 2009). Respondents ranked the most important skills they seek from the program for preceptors as follows: the ability to assess and evaluate the students' clinical performance (57%), complete understanding of their roles and responsibilities (41%), and skills in providing effective feedback to the students (44%). These findings represents respondents ranking of these skills as "most important", a rating of 10 on a scale of 1-10. The authors provide no discussion or results regarding responses at alternative rankings (i.e. how many people ranked 9 on the previous skills) neither did they provide any averaging of these results.

Summary

Preceptorship continues to be an important part of clinical education in respiratory care. It has been equally important in other health professions that have implemented strategies dedicated towards training of preceptors. Physical therapy have been involved in this type of training and education since 1997. Pharmacists must complete a residency internship in which they are trained as preceptors. Other professions have designated resources (e.g. clinical instructors) in the clinical sites to supervise and provide clinical education, such as nursing. The clinical education in respiratory care remain one of the important areas are undergoing development and changes. Respiratory care departments vary in their structure and manpower as some departments have clinical instructors. As the AARC have initiated the "2015 and Beyond"

campaign that is dedicated towards looking at future needs of education, evaluation of preceptor-education at the clinical site can add worthy information regarding respiratory care clinical education. The features of a perfect preceptor remain unclear, as more research has to be done.

Chapter III

METHODOLOGY

In this study, I explored the current options of training and education of respiratory care preceptors, as well as future needs of preceptor training in selected hospitals. The study was completed by using an online survey to identify the need for a preceptor-training program for respiratory therapists according to respiratory care directors, education coordinators or staff at hospitals. A panel of experts at Georgia State University completed the revisions and modifications. The committee members met and discussed every element of the instrument and finalized a survey of fourteen questions (see appendix A). The online version of this survey was created using Zoomerang.

Research Questions

This study will focus on answering the following questions:

7. Who supervises the respiratory therapy student in respiratory care departments?
8. Do respiratory care departments employ a preceptor-training program?
9. How are respiratory therapy students assigned respiratory therapy staff?
10. Who delivers preceptor-training programs to respiratory care staff?
11. Are respiratory therapy staff given any incentives to precept students?
12. Is there a need for a standardized preceptor-training program in respiratory care?

This chapter presents the methodology used to answer the research questions. Specific sections include the procedures employed to identify the study sample, procedure to identify an instrument to assess the need for a preceptor-training program according to respiratory care department staff.

Instrumentation

The instrument developed in this study was a survey that was modeled after Rye & Boone (2009). Their purpose was to identify the need for a national preceptor-training program for respiratory therapists according to academic program directors. The survey was edited and modified to identify the need for a preceptor-training program for respiratory therapists according to respiratory care directors, education coordinators and/or staff. A panel of experts at Georgia State University completed the revisions and modifications utilizing a modified Q-sort method. The committee members met and discussed every element of the instrument and finalized a survey of sixteen questions (see appendix A). The online version of this survey was created using Zoomerang.

Reliability refers to the consistency or stability of a measuring device over time. Reliable questions will have the same meaning to all members of the population being studied (Huck, 2004; Gall et al., 2003). Reliability refers to the consistency of the scores for each individual over time.

Validity is concerned with inferences made from scores, obtained from a survey or other type of data collection instrument. While reliability only tells you if you obtain consistent scores from an instrument, validity tells you if the score has any meaning. If test scores are valid, then the instrument does in fact measure what it purports to measure. In this study content, criterion, and construct validity will be used. Fraenkel and Wallen (2000) discuss content, criterion, and construct validity as evidence that relates to validity of scores.

Content validity means that the items on an instrument are a representative sample of the behavioral domain of interest. To determine if items are appropriate and the questionnaire contains all relevant items related to the topic, content validity is required.

A construct is any concept that cannot be identified, but can be operationalized to explain behavior. Construct validity is concerned with the degree to which the constructs are measured (Huck, 2004; Gall et al., 2003). For this study items will be constructed from relevant material that has been published.

Survey items were selected based on the following: comprehensiveness of the questions; avoiding redundancy; and balance of questions represented. The pool of questions was revised and modified by advisory panel. If items are redundant then one will be kept and the others will be excluded. For items to remain on the instrument, all of the panel members must agree on the placement and the format of the entry. A committee consisting of the Director of Clinical Education, two assistant clinical professors and myself critiqued the survey items. The committee was selected for their experience in education, clinical education, and the selected population being surveyed. Committee members were also asked to consider appropriate wording.

Directions to the committee were to keep good items, eliminate poor items, and reword unclear items and decide if a construct had been omitted. The committee held one meeting lasting one-hour. From this meeting, fourteen items were kept and can be found in appendix A. The questions eliminated from the pool were done due to redundancy and unsuitability.

Development of Cover Letter

Development of the cover letter occurred by the researcher after examining different examples and styles of previous similar surveys (Portney & Watkins, 2008). Once the sample

was created, it was sent to the major professor for review. After recommendations from the researcher's major professor a final cover letter, follow-up email and a final email can be found in Appendix B, C and D, respectively.

Population

The population of this study was a convenience sample of education coordinators, department directors, and regular staff members of respiratory care departments in Atlanta area hospitals. This study will be restricted to hospitals that accept respiratory care graduate and undergraduate students enrolled at Georgia State University to complete their clinical rotation prior to graduation. The study is also restricted to the hospitals that are based in the Atlanta area of the state of Georgia.

Design

A survey is a process of research that involves answering questions and/or interviews. The purpose of a survey is to use questionnaire interviews to collect data from a sample to report the population in research. The advantage of survey research is the ability to collect a large amount of information from many participants using only one instrument. Low cost is another advantage of survey research assuming using online technologies and reaching large number of participants (Portney & Watkins, 2008).

Disadvantages of survey research also exist. Since the design requires answering questions, respondents may not provide accurate information, leading to inaccurate information about the population (Portney & Watkins, 2008). Surveys that are long and complex may cause these errors to happen. Therefore, design of survey research should involve questions to be short

and simple. Surveys also should not allow for probing or follow-up questions (Portney & Watkins, 2008). Direct and accurate questions should be provided to draw the anticipated information. It is acknowledged that the researcher cannot control how participants view questions, therefore, the researcher must ensure validity and pilot testing as applicable. By doing this, the researcher can minimize errors and unclear questions.

Sample

The sample population of the study was composed of clinical sites affiliated with the division of respiratory care program at Georgia State University. A convenient sampling procedure was used. In convenient sampling, subjects are chosen on the basis of availability. Hospitals that are affiliated with Georgia State University are more accessible since all contact details are available.

Data Collection

Participants received an email with the cover letter that explained the purpose of the study and objectives. It also included directions on how to initiate the survey as well as a link to the electronic content of the survey.

Approximately one week after the initial mailing of the survey, a follow-up electronic reminder was sent to remind participants to complete the survey. Then, a final email reminder was sent after five days from the follow-up email to remind participants to complete the survey.

Data Analysis

Data collected for the study was entered into the statistical program Statistical Package for the Social Sciences for analysis (SPSS). Analysis of the data was conducted to address each research question. Descriptive statistics were acquired for each element of the instrument.

Chapter IV

FINDINGS

The purpose in this study is to examine the current methods of preceptor training and evaluate the need of preceptor training program according to respiratory care managers and/or education coordinators of clinical affiliates associated with the department of respiratory care at Georgia State University. This chapter presents the statistical analysis described in the preceding chapter. The findings will be presented separately in relation to the following research questions.

Research Questions

1. Who supervises the respiratory therapy student in respiratory care departments?
2. Do respiratory care departments employ a preceptor-training program?
3. How are respiratory therapy students assigned respiratory therapy staff?
4. Who delivers preceptor-training programs to respiratory care staff?
5. Are respiratory therapy staff given any incentives to precept students?
6. Is there a need for a standardized preceptor-training program in respiratory care?

Findings Related to Research Question 1

The first research question asked, “Who supervises respiratory therapy student in respiratory care departments?” Table 1 shows the response rates for all answers. The results show respondents choosing more than one answer regarding who directly supervise students during their clinical rotation. Majority of responses (83%) reported students are being monitored by “Respiratory Therapy Staff Members”. Respondents also reported participation of education

coordinators, from both an academic program and hospital-based education coordinators, in supervising students in their clinical education.

Table 1. Direct Supervision of Respiratory therapy Students During Clinical Rotation (n=23)

Respiratory Therapy Staff Members	83% (19)
Clinical Instructors from College	26% (6)
Hospital Education Coordinator	39% (9)

Findings Related to Research Question 2

The second question asked, “Do respiratory care departments employ a preceptor-training program?” Table 2 shows the mean score of the questions concerning whether respiratory therapists received any type of preceptor training prior to receiving students, how many hours of training and what type of training (online course, workshop, class...etc.). Respondents showed that many respiratory therapy preceptors receive training prior to teaching students (61%). Those completed training program prior to receiving students had mostly completed an 8-hour workshop.

Table 2. Preceptor training, type of training and hours spent on training (n=23)

Yes	61% (14)	
No	39% (9)	
Type of Training	Workshop	82% (9)
	Class	18% (2)
Hours	8-Hour	91% (10)
	1-Hours	9% (1)

Findings Related to Research Question 3

The third question asked, “How are respiratory therapy students placed with respiratory therapy staff?” Table 3 shows the statistical results for items related to this question. The survey item asked, “Are respiratory therapy staff members who precept students enrolled in staff development, volunteer or assigned”. Respondents were given the option of choosing more than one answer of the three options. Majority of the respondents reported staff members are assigned to preceptorship duties, while some can be enrolled in development programs. Other findings indicate that staff members volunteer to precept students.

Table 3. Respiratory staff assignment to preceptor roles (n=23)

Enrolled in Staff Development	22% (5)
Volunteer	39% (9)
Assigned	78% (18)

Findings Related to Research Question 4

The fourth research question asked, “Who delivers preceptor-training programs to respiratory care staff?” Table 4 depicts the statistical findings of the question that pertains to delivery of preceptor training program. The item asked, “Who deliver preceptor training” and respondents were given four choices for delivery of preceptorship training program. These choices are “College Program Personnel”, “Respiratory Therapy Personnel”, “Hospital Personnel” and “Other”. Overall, distribution was noted higher for hospital personnel. Ten participants chose not to answer this question.

Table 4. Source of preceptor training program (n=15)

College Program Personnel	27% (4)
Respiratory Therapy Personnel	33% (5)
Hospital Personnel	40% (6)

Findings Related to Research Question 5

The fifth research question asked, “Are respiratory therapy staff given any incentives in precepting students?” Figure 1 presents the distribution of the answers. The following explains the statistical findings of the one item related to incentives given to therapists for their participation in preceptorship. The question asked, “Do the practitioners who act as respiratory therapy preceptors in your area receive any type of incentive/reward (i.e. career ladder opportunities, additional pay, CEUs, etc.)?” and respondents were given two choices. 52% (12/23) reported no incentives are awarded to their preceptor employees, while 48% (11/23) reported providing their preceptor employees with incentives.

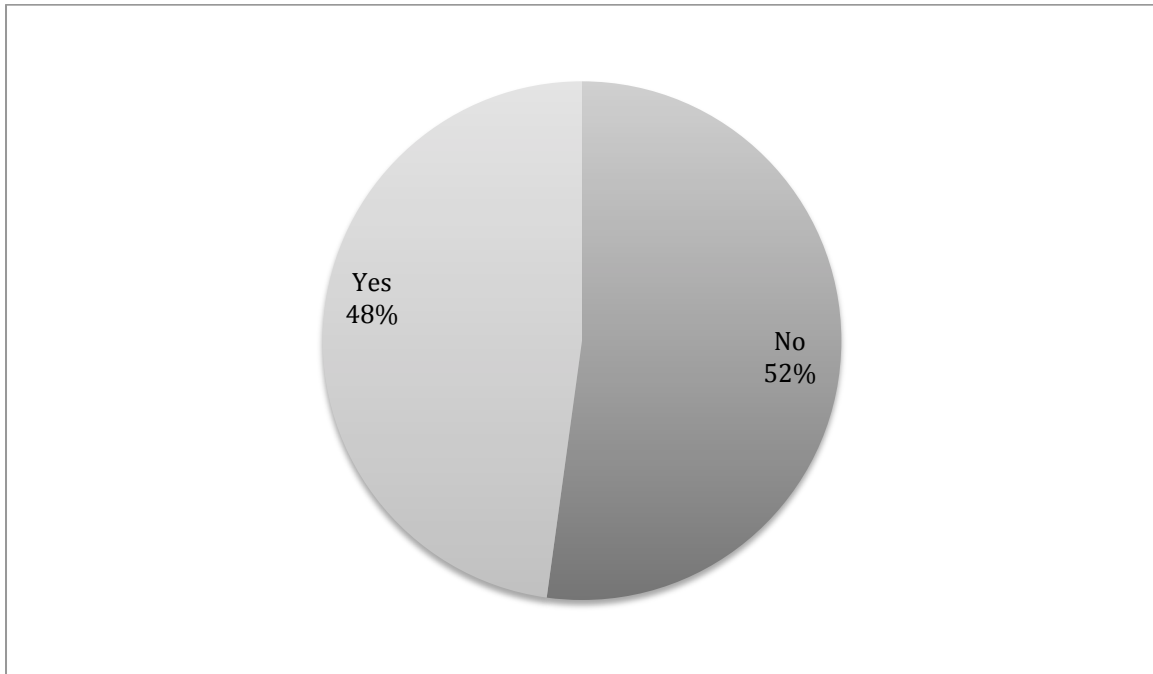


Figure 1. Do preceptors receive any type of incentives for precepting students? (n=23)

Findings Related to Research Question 6

The sixth question asked, "Is there a need for a standardized preceptor-training program in respiratory care?" Figure 2 illustrates findings of the one question in the survey that is related to the need for a standardized preceptor-training program. The question asked, "I believe there is a need for a standardized preceptor-training program for respiratory therapists" and offered two answers. Majority of the responses agreed on the need for standardized preceptor-training program. This question marked the highest response rate of all questions with 25 responses.

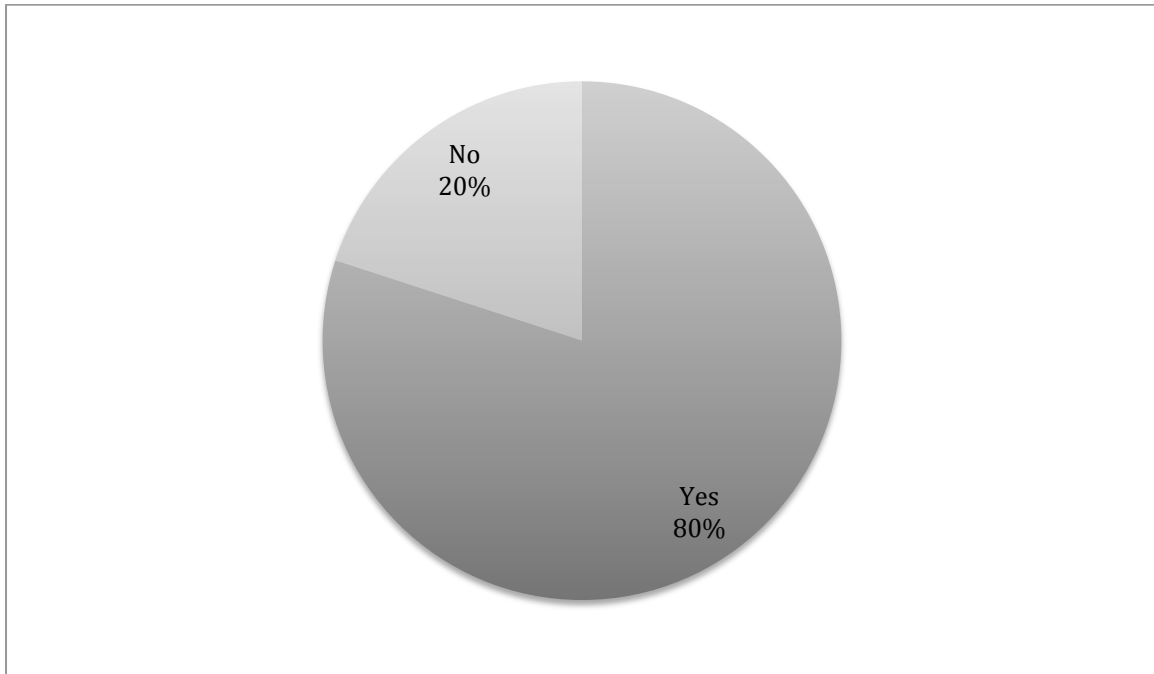


Figure 2. The need for a standardized preceptor-training program for respiratory therapists according to respiratory care departments (n=25)

Summary

This chapter presented the findings of the research study. In summary, the major finding of the research is descriptive in nature. Most respiratory care staff members (managers, directors, education coordinators and therapists) believed there is a need for a standardized form of preceptor training program for therapists.

CHAPTER V

INTERPRETATION OF FINDINGS

This chapter will present interpretation of the findings discussed in Chapter IV. This chapter is divided into five major sections, including overview of the study, discussion of findings, implications for practice, implications for research, and recommendation for future research.

Overview of the Study

The purpose of this study was to examine the current methods of preceptor training and evaluate the need for a preceptor training program according to clinical instructors or respiratory care managers of clinical affiliates associated with the department of respiratory care at Georgia State University. The research questions leading this study were:

1. Who supervises the respiratory therapy student in respiratory care departments?
2. Do respiratory care departments employ a preceptor-training program?
3. How are respiratory therapy students assigned respiratory therapy staff?
4. Who delivers preceptor-training programs to respiratory care staff?
5. Are respiratory therapy staff given any incentives to precept students?
6. Is there a need for a standardized preceptor-training program in respiratory care?

The instrument that guided this study was a survey that was developed by Rye & Boone (2009). Their purpose was to identify the need for a national preceptor-training program for respiratory therapists according to academic program directors. Their instrument was reviewed and validated for both face and content validity

The survey used for this study was modified to identify the need for a preceptor-training program for respiratory therapists according to respiratory care directors, education coordinators or staff at hospitals. A panel of experts at Georgia State University completed the revisions and modifications. The committee members met and discussed every element of the instrument and finalized a survey of fourteen questions (see appendix A). The online version of this survey was created using Zoomerang.

Participants in the study were selected based on a convenience sample of education coordinators, department directors, and regular staff members of respiratory care departments in the hospitals of metropolitan Atlanta. This study was restricted to hospitals that accept respiratory care graduate and undergraduate students enrolled at Georgia State University to complete their clinical rotation prior to graduation. The study was also restricted to the hospitals that are based in the Atlanta area of the state of Georgia.

Thirty-six participants were identified based on their positions in the previously mentioned clinical locations. Participants were contacted by email and they were sent a cover letter that contains purpose of the study and instructions on how to complete the survey. Of the population, 25 responded to the study. Of the 25 returned surveys, 23 were deemed usable resulting in a 64% adjusted response rate. The completed surveys were acquired through the online survey website of the same survey-generator website Zoomerang. The collection plan included an initial invitation with the survey website link included, a follow-up email with the survey website link included, and one final email reminder with the survey website link included.

Usable data were entered into SPSS software for statistical analysis. Descriptive statistics were used to determine means and standard deviation of some of the research questions (see chapter IV for details).

Discussion of Findings

Findings Related to Research Question 1

The first research question asked, “Who supervises the respiratory therapy student in respiratory care departments?” The results show respondents choosing more than one answer regarding who directly supervise students during the clinical rotation. Majority of responses (83%) reported students are being monitored by “Respiratory Therapy Staff Members”. Respondents also reported participation of education coordinators, from both academic program and hospital-based, in supervising students in their clinical education.

Overall, results show that respiratory therapy students are being supervised and monitored by respiratory therapists during their clinical rotation. This was not unexpected, as most respiratory therapy departments do not have sufficient human resources to appoint a clinical instructor for supervision for clinical education. Also, this question brings the clinical staff member’s response of clinical education in the hospital. This response has been similar to previous findings in the literature.

The directors of respiratory care academic programs reported similar findings (Rye & Boone, 2009). Respiratory care program directors stated unpaid staff therapists supervised students during their clinical rotation (Rye & Boone, 2009). This finding is also similar to findings in nursing education where students are sometimes assigned to nursing staff instead of a clinical instructor (Smedley et al., 2010).

Findings Related to Research Question 2

The second question asked, “Do respiratory care departments employ a preceptor-training program?” Respondents showed that many respiratory therapy preceptors receive some type of training prior to teaching students (61%), 39% indicated no training is provided. Among the hospitals that indicated their preceptors receive training prior to receiving students, 82% indicated that the training was a “workshop” usually provided by the academic program (Respiratory Therapy at Georgia State University) each year. These workshops were reported to be eight hours long by majority (91%) and only a few responses indicated 1-hour session for respiratory staff therapists (9%) delivered in the hospital. According to Rye & Boone (2009), 32% of academic programs reported preceptors have received no training prior to receiving students. In other professions, physical therapists are required to complete a preceptor program (CIECP) (Buccieri et al., 2011; Housel et al., 2010). CoARC and AARC do not require respiratory therapists to complete a preceptorship course. Therefore, not all respiratory preceptors have formal training.

Managers and education coordinators have also reported the type and length of training that is provided to respiratory preceptors as mostly a workshop that is provided by the academic program (82%). These findings coincide with reports from academic programs that has identified “orientation to the program” workshop presented by the director of clinical education (Rye & Boone, 2009)

Findings Related to Research Question 3

The third question asked, “How are respiratory therapy students placed with respiratory therapy staff?” The survey item asked, “Are respiratory therapy staff members who precept students enrolled in staff development, volunteer or assigned”. Respondents were given the

option of choosing all applicable answers. Majority of the respondents reported staff members are assigned to preceptorship duties (78%), while others reported staff are volunteering to be preceptors (39%). Findings found enrollment of preceptors in staff development programs at hospitals were 22%. These findings are similar to what academic programs have reported in other literature (Rye & Boone, 2009). In other professions, such as physical therapy, preceptors must complete training in a preceptorship program prior to receiving students (Buccieri et al., 2011; Housel et al., 2010). Nursing professions have reported preceptor training for nurses. Nursing students are also sometimes partnered with nurses who have not been trained (Smedley et al., 2010). This is noted to be similar in respiratory therapy as was found in this study. Nursing and respiratory therapy have reported staffing shortages and time limitation for being behind in preceptor training. According to Leners, Sitzman, & Hessler (2006), preceptorship has become a *“progressively pressing issue for educators”* (Leners et al., 2006). Similarly, *“Lack of Time/Resources”* and *“Staffing Limitation”* were cited as “most” barriers in conducting preceptorship program (47%, 29%; respectively) in the current study. Respiratory therapy academic programs have also reported similar findings (Rye & Boone, 2009).

Findings Related to Research Question 4

The fourth research question asked, “Who delivers preceptor-training programs to respiratory care staff?” The item asked, “Who delivers preceptor training” and respondents were given four choices for delivery of preceptorship training program. These choices were “College Program Personnel”, “Respiratory Therapy Personnel”, “Hospital Personnel” and “Other”. Forty percent of respondents reported delivery of preceptor training program by hospital personnel, whereas twenty seven percent reported delivery by college program personnel and respiratory

therapy personnel delivered thirty three percent. Previous findings report that the director of clinical education was the main provider of the preceptor-training program (Rye & Boone, 2009). In evaluation of other healthcare professions, we see that preceptor-training programs are mostly presented and created by academic officials (APTA 1997; Ricchetti & Jun, 2011).

Findings Related to Research Question 5

The fifth research question asked, “Are respiratory therapy staff given any incentives in precepting students?” The survey question asked, “Do the practitioners who act as respiratory therapy preceptors in your area receive any type of incentive/reward (i.e. career ladder opportunities, additional pay, CEUs, etc.)?”. Fifty-two percent reported no incentives are awarded to their preceptor employees, while 48% reported providing their preceptor employees with incentives. Previous literature findings reported that 39% of academic program directors “did not believe that practitioners were receiving any type of reward for preceptorship from their employer” (Rye & Boone, 2009,p. 872). This indicates a difference in reporting of preceptorship between academic programs and the clinical affiliates employees. Respiratory department directors/managers and education coordinators do not believe their staff preceptors are receiving incentives such as career-ladder opportunities, and additional pay, while academic officials thought respiratory staff received incentives for preceptor role. Nursing literature has reported similar findings in which nurses reported not receiving incentives for their role in preceptorship (Alspach, 2003)

Findings Related to Research Question 6

The sixth question asked, “Is there a need for a standardized preceptor-training program in respiratory care?” The question asked, “I believe there is a need for a standardized preceptor-training program for respiratory therapists” and offered two answers. Eighty percent of the respondents thought there is a need for standardized preceptor-training program. This question marked the highest response rate of all questions with 25 responses. Rye & Boone (2009) found similar results in their survey for respiratory care program directors. Other health professions have recognized the significance for standardization in clinical education. Physical Therapy has implemented a standard preceptor-training program across the nation (APTA, 1997). *Educational Strategic Plan* is an act developed by APTA in 2006 with goals that direct the need for everyone involved in clinical education to acquire equally acceptable standards for clinical education that will support physical therapy education (APTA, 2006).

Implications for Practice

This study revealed that respiratory therapy departments recognize the need for a standard preceptor-training program. The study also brings to light the current training level respiratory preceptors have maintained, which varied from institute to another. Some hospitals provided training that is structured to respiratory therapy education needs, others do not provide preceptor training. We also found that lack of resources and staffing shortages have implications on respiratory clinical education, in which respiratory departments face difficulties in training their practitioners. Along with previous literature, this study affirms the need for more resources and staffing to help bring the level of preceptor training to a better and standardized level.

The study also confirms the need for development of a standardized program for training program. Cooperation of the AARC and the CoARC can bring standards to respiratory therapy

clinical education that will help better educate future generations of respiratory therapy students. Our findings assist in pointing to the needs of respiratory clinical education currently lacking.

Implications for Research

This study was based upon literature of preceptor training in clinical education to assess the opinion of respiratory therapy managers and/or education coordinators regarding the need for standardization of preceptor training program in respiratory therapy. This study was able to determine the options respiratory therapy managers and/or education coordinators hold towards preceptor training and difficulties they face in respiratory therapy clinical education.

The study contributes to the literature as it shows the need for a standard preceptor-training program available for all respiratory therapy staff members. Scarcity in the literature review of preceptor education, particularly in the field of respiratory therapy, is noted; therefore, findings of this study will be a great addition to the literature.

Recommendations for Future Study

Since the sample chosen in this study represents hospitals in one metropolitan area, generalization of findings in this study might be limited. Therefore, evaluation of other hospitals with larger sample size is recommended.

This study presented the options of respiratory therapy managers and/or education coordinators in hospitals regarding preceptor training and education. Previous literature describes the opinion of academic programs regarding preceptor education. Future research evaluating the feedback of preceptors in clinical education according to students may bring a better understanding of preceptor training needs in respiratory therapy.

Appendix A

CLINICAL AFFILIATES SURVEY

Part 1: Demographics

1. Indicate your role in the respiratory therapy department:
 - a. Director/manager
 - b. Education Coordinator
 - c. Supervisor
 - d. Staff
 - e. Other _____
2. Type of institution (choose all that apply):
____ For Profit Hospital
____ Not for Profit Hospital
____ Governmental / Federal Hospital
3. Location of institution:
____ Urban
____ Suburban
____ Rural
4. What is the bed size capacity of your hospital? (Be specific)
 - a. Less than 100
 - b. 100-399
 - c. 400-600
 - d. More than 600
5. What is the maximum number of students receiving clinical instruction per instructor/preceptor (i.e. maximum student: instructor ratio in any clinical setting)?

Part 2: Preceptor Training Needs

1. Who directly supervises respiratory therapy students during their clinical rotation in your institution (Choose all that apply.)
 - a. Respiratory Therapy Staff Members
 - b. Clinical Instructors from College
 - c. Hospital Education Coordinator
- 1.1 Are respiratory therapy staff members who precept students:
 - a) Enrolled in Staff Development
 - b) Volunteer
 - c) Assigned
- 1.2 Do the practitioners who act as respiratory therapy preceptors in your area receive any type of incentive/reward (i.e. career ladder opportunities, additional pay, CEUs, etc.)?
 - a) Yes
 - b) No

2. Does respiratory therapy staff receive any type of hospital training prior to receiving students?
- a. Yes
 - b. No

If yes, please describe the type of training they receive _____ (online program, workshop, lecture...etc)

If yes, please describe the length of training that they receive _____ (Hours)

3. Who delivers that training?
- a. College program personnel
 - b. Respiratory Therapy personnel
 - c. Hospital personnel
 - d. Other _____
4. Is the training designed to meet the specific needs of respiratory care staff members?
- a. Yes
 - b. No
5. I believe there is a need for a standardized preceptor-training program for respiratory therapists.
- _____ Yes
- _____ No

If no, thank you for completing this survey. You may submit your survey now.

6. Which of the following would be the most important preceptor-training needs at your institution?
- a. Assessment/evaluation of clinical performance
 - b. Effective feedback
 - c. Preceptor roles and responsibilities
 - d. Communication skills
 - e. Inter-rater reliability
 - f. Dealing with the difficult student
 - g. Principles of adult learning
7. Which of the following would be the most important barriers to conducting successful preceptor training at your institution?
- a. Lack of time or resources
 - b. Lack of incentives for preceptors to participate
 - c. Lack of curriculum
 - d. Staffing limitations at clinical affiliate sites that would prevent preceptor participation
8. Which of the following methods would be the most desirable to deliver the training needs of respiratory therapy clinical preceptor at your institution?
- a. Classroom

- b. Video
 - c. Online/ Web conferencing
 - d. Workshops
 - e. Computer-based Training
9. Which would best support preceptor training and development at your institution?
- a. Hospital Preceptor Workshop
 - b. Respiratory Therapy Dept. Workshop
 - c. College Sponsored Workshop
 - d. Other

Appendix B

COVER LETTER

Dear Respiratory Professional

We are conducting a study entitled “*The Significance of Preceptor Training in Clinical Education*” to explore the current practices of preceptor training in respiratory care. We are trying to better evaluate the need for a preceptor-training program for hospital staff precepting respiratory therapy students at the clinical site. The study is being conducted by Tariq Aljasser, a master degree candidate from the Department of Respiratory Therapy at Georgia State University, under the guidance of Dr. Doug Gardenhire, Director of Clinical Education. The information you provide will be used in a thesis prepared by Tariq Aljasser and supervised by Dr. Doug Gardenhire.

Your participation in this study is completely voluntary. If you agree to participate, you will be asked to complete the survey at the bottom of this email. You can refuse to participate or stop taking the survey at anytime without penalty or loss of benefits to which you are otherwise entitled. Most people will be able to complete the survey in less than ten minutes.

In order to protect your confidentiality, no names or codes will be used to identify you. Surveys will be destroyed after all surveys have been collected. We hope that you will submit a completed survey. However, if you choose not to participate in this study, simply leave all entries blank and submit the survey.

When we publish our findings, we will report our findings based on groups, not on individuals. If you would like an executive summary, please send your information to taljasser1@student.gsu.edu

We don't foresee this study causing you any harm or discomfort. However, should you be

uncomfortable about completing the survey, simply submit a blank survey.

If you have any questions about this research, now or in the future, please contact Tariq Aljasser at taljasser1@student.gsu.edu or Dr. Doug Gardenhire at dgardenhire@gsu.edu. The department's mailing address can be found at the bottom of this page. You may also contact the Georgia State University.

Please note: completion and submission of this survey implies that you have read this information and consent to participate in the research.

Thank you in advance for your cooperation. Your participation makes an important contribution to the future of respiratory clinical education.

Survey Link: <http://s.zoomerang.com/Survey/WEB22GRUWSTQB6/>

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Atlanta, GA 30302
(404) 413-1225

Appendix C

FOLLOW-UP LETTER

Dear Participant

Last week you received an email message asking you to complete a survey for a study entitled “*The Significance of Preceptor Training in Clinical Education*”. The survey is aimed at exploring the current practices of preceptor training in respiratory care.

If you have already completed the survey, thank you for your participation. If not, I would appreciate you completing the online survey (Link is below).

Please be assured that your response in this survey is anonymous. Thank you in advance for your cooperation. Your participation makes an important contribution to the future of respiratory clinical education.

Survey link:

<http://s.zoomerang.com/Survey/WEB22GRUWSTQB6/>

Appendix D

FINAL REMINDER LETTER

Dear Respiratory Care Professional:

As respiratory therapist, I understand you are very busy. So, I wanted to remind you that I still need your assistance. About two weeks ago, I sent you an online survey to complete. The purpose of the survey is to seek your help in better understanding current practices of preceptor training in respiratory care.

If you have responded to the survey thank you for your time. If you have not, I am writing you again because I still need your help to successfully complete this study. Your input is important to understanding preceptor training. The survey will take no more than 5 minutes of your time. I would like to ask you to please complete the survey today by clicking on the link below:

<http://s.zoomerang.com/Survey/WEB22GRUWSTQB6/>

I am available to answer any questions you might have. Please feel free to e-mail. The e-mail address is taljasser1@student.gsu.edu

Best Regards,

Tariq Aljasser

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